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Expound Architectural Philosophies

Mies van der Rohe Honored by Profession and Armour Institute

The dinner in honor of Ludwig Mies van der Rohe, new Director of the Department of Architecture, Armour Institute of Technology, which was sponsored by Armour Institute, the Chicago Chapter, A. I. A. and the Illinois Society of Architects, drew to the Palmer House, Chicago, on the evening of October 18 a company of four hundred and fifty people. Among these were many distinguished architects and educators, including William Emerson of Massachusetts Institute of Technology, Joseph Hudnut of Harvard, Rexford Newcomb of University of Illinois, Eliel Saarinen of Cranbrook Academy, Michigan, Roy Childs Jones of the University of Minnesota, George Young, Jr. of Cornell, and Goldwin Goldsmith of the University of Texas.

Toastmaster James D. Cunningham, Chairman of the Board of Trustees of Armour Institute, first introduced Henry T. Heald, President of Armour. Mr. Heald expressed assurance that the Department of Architecture, under its new director, would make a real contribution to the art, and announced a gift from Mrs. J. Ogden Armour which would enable the Department to carry on the work planned.

Dean Emerson Foresees Rebirth

Dean William Emerson took occasion to glance back at architectural thought of the past twenty-five years and expressed the conviction that the ground has now been cleared for a fresh start, for a truer realization of basic essentials than ever before, presenting a challenge to the ability and creative imagination of the profession. He applauded Mr. Van der Rohe's answer to this challenge as expressed in his work and said that he needs no warning of the fatal consequences of uniform standards in architecture which would permit one architectural expression from Russia to California and from Alaska to Florida.

Frank Lloyd Wright Rebukes His Confrères

Frank Lloyd Wright thought the atmosphere of the evening was "too learned, too highly educated," to provide the time or place for the discussion of the ideals of an organic architecture. "Since Europe has taken over American architecture," said Mr. Wright, "and it serves the country right, I am proud to give you Mies van der Rohe. I give him to you more perhaps than you realize—more, perhaps, than he realizes. When the ideals of an organic architecture do prevail, as they will, the entire structure of what we now call education will lie in the dust. It will not even be a picturesque ruin. This thing is going to begin at the beginning once more—where architecture always begins. It begins anew at least every generation. Why not every hour? The eclecticism of this country could get the ideals of an organic architecture in no other way than from a foreign country. Let us be grateful."

Eliel Saarinen Pleads for an Organic Architecture

Eliel Saarinen's contribution to the symposium manifested a rich depth of thought. He spoke of the young architectural student of Ancient Greece and of the appren-

tice of the Middle Ages and the clear conception they had of the art form in which they worked—a form that had its beginning in the soul of the people. Mr. Saarinen regretted that the architectural student in the late decades of the 19th century was not so fortunate in this respect, for all the styles and dogmas of the past were taught him in his classrooms and he put designs together like a child playing with blocks. When the student emerged from school, he began to decorate homes, cities and towns so that these are now full of strange decorations which do not belong to our lives, which are not born afresh of us.

"The architectural student of today," said Mr. Saarinen, "is awed in this strange environment. But we have now come to a new era—a transitional time—and something new has to come. Yesterday the student was told that architecture should express material and construction. But what happens in architectural practice? Very often material is used in the same form, whether it be concrete in a gateway or silver in a necklace. The architects are now told that speed is essential in our lives and that it must be expressed in form. So architects design everything alike, streamlining everything, whether it be a racing car or a sturdy lamp-post on a street corner. We forget that architecture is an organic art form, not a stylistic art form."

Mr. Saarinen congratulated the students of Armour Institute on having the opportunity of being guided by Mr. Van der Rohe.

"Evolution, Not Revolution," Says Dean Newcomb

Dean Rexford Newcomb felt that Mr. Van der Rohe would help to recover the course of architecture which had been started by the Chicago School forty years ago and which all but perished in the archaeological frenzy of the 1893 World's Fair. Mr. Newcomb pointed out that modernism is not really such a new thing, for Brunelleschi had indeed been a real modernist. Many modernists, he said, are too impatient with the process of evolution. Revolution is not necessarily the right way out, for evolution will still have her own sweet way.

Mies van der Rohe Presents His Philosophy

"Any training," declared Professor Van der Rohe, "must be directed, first of all, towards the practical side of life. But if one may speak of real education, then it must go further and reach the personal sphere and lead to a moulding of the human being.

"The first aim should be to qualify the person to maintain himself in everyday life. It is to equip him with the necessary knowledge and ability for this purpose. The second aim is directed towards a formation of the personality. It should qualify him to make the right use of his knowledge and ability.

"Genuine education is directed not only towards specific ends but also towards an appreciation of values. Our aims are bound up with the special structure of our epoch.

Values, on the contrary, are anchored in the spiritual destination of mankind. The ends toward which we strive determine the character of our civilization. The values we set determine the level of our culture.

"Although aspirations and values are of different nature and of different origin, they are actually closely associated. For our standards of value are related to our aspirations, and our aspirations obtain their meaning from these values.

"Both of these sides are necessary to a full human existence. The one assures the person his vital existence, but it is only the other that makes his spiritual existence possible.

"Just as these propositions have a validity for all human conduct, even for the slightest differentiation of value, so are they that much more binding in the realm of architecture. Architecture is rooted with its simplest forms in the purposeful, but it extends over all the degrees of value into the highest sphere of spiritual existence, into the sphere of the significant, the realm of pure art.

"Every architectural education must take account of this relationship if it is to achieve its goal. It must take account of this structural joinery. It can, in reality, be nothing other than an active unfolding of all these relationships and inter-relationships. It should make clear, step by step, what is possible, what is necessary, and what is significant.

"If education has any purpose whatever, then it is to build character and develop insight. It must lead us out of the irresponsibility of opinion into the responsibility of insight, judgment and understanding. It must lead us out of the realm of chance and arbitrariness and into the clear light of mental order.

"Therefore we guide our students over the disciplinary road from material through function to form. We want to lead them to a healthy world where building is natural and organic.

"We promise not to do anything with materials except what the materials themselves can do.

"Just as we want to learn the materials with which we work and just as we want to analyze the purposes for which buildings are built, so do we want to learn to know the spiritual and intellectual sphere in which we stand. That is a prerequisite for proper conduct in the cultural sphere. Here, too, we must know what exists, for we remain dependent upon our epoch.

"Therefore we must learn to recognize the sustaining and compelling forces of our times. We must make an analysis of their structure; that is, of the material, the functional, and the intellectual forces of today. We must clarify wherein our epoch is similar to former epochs, and wherein it differs from them.

"Yet every decision leads to a definite clarification of principles and values. Therefore we will elucidate the possible principles of order and clarify their bases. We will mark the mechanical principle of order as an over-emphasis of the materialistic and functional tendency. It does not satisfy our feeling that 'the means' is a menial function, nor does it satisfy our interest in dignity and worth. The idealistic principle of order, on the other hand, can—with its over-emphasis on the ideal and the formal—neither satisfy our interest in truth and simplicity, nor the practical side of our intellect.

"We will make clear that the organic principle of order is a placing of each part in its proper relationship to every other part and to the whole. We will adopt this last principle as the basis of our work. We want a principle of order which gives everything its proper place. We want to give to everything that which is its due, in accordance with its nature. We want to do that so perfectly that our creations begin to bloom from within themselves because they are so right, so perfect, and so simple. We want no more, nor can we do more."

The foregoing are the highlights of Professor Van der Rohe's address. In closing he quoted these words of Thomas Aquinas as best expressing his aim and meaning: "Beauty is the radiance of the truth."

—Dorothy G. Wendt.

Allow the groveling soul to look for plagiarism; allow the vain man to seek proof that thought is but the child of some vague "influence" he traces to the land of his fathers; allow, however, men of another mold to see in this fact a sublime suggestion of a unity which binds all the fundamental spiritual forces that move men when they are least like the lower animals.

—Sveinbjorn Johnson, *University of Illinois.*

Ancient Rome's Port Unearthed for 1942 Fair

Because modern Rome is to hold a World's Fair in 1942, the ruins of ancient Rome's seaport—Ostia at the mouth of the Tiber—are to be completely unearthed.

Ostia, it has developed, did some of its shopping in a three-story department store, a grand affair with display windows. Merchants rented quarters inside. It was probably the first big department store Romans knew. An incidental point of interest is a swastika design in one of the ancient floors, said to have pleased the modern Nazi leader when it was shown him. The city had apartment houses four and five stories high.

Ostia's population rose to 100,000. The seaport boasted beautiful buildings, a forum, public baths, barracks for firemen, and an open air theater. Modern visitors observe with

interest the large bar found near the theater. Carved tombstones on which bakers, merchants, and a variety of other trade folk had themselves portrayed at their daily tasks are in the cemetery.

Portable air conditioning units are used to make an "oasis" for field workers of an oil company on duty in the Arabian desert.

The amphitheater of the University of California Medical School is now decorated with murals showing dramatic scenes of healing and medical progress in the state's history.

Mud bricks mixed with straw, such as have been used for thousands of years in Egypt and Mesopotamia, have been proven superior to modern baked bricks as heat insulators by the Heat Transmission Research Laboratory at Giza, Egypt.

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Editor Monthly Bulletin

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The Cost of Building

There are apparently many who feel that building costs are high. Among them there may be a few who have studied the question sufficiently to conclude that building costs are relative.

Those who have given serious study to this question have concluded that it is involved with many elements and before the statement that costs are too high can be made with assurance, many facts should be carefully considered.

Committees of the Illinois Society are at work to intelligently make such an analysis. Should their labors end without seeing a practical way of making cost reductions with the present methods of design, finance and construction, what is there left for architects but to devise their own methods of finance, assembly and construction to reduce costs?

Methods of construction are still in a primitive stage, comparatively speaking, in the light of new building materials.

Primitive methods still prevail to an extent perhaps not justified in view of the changed products and their method of production. And here the item of multiple parts, rather than simplified parts assembled at the factory, is cause for criticism.

The market at the present time offers an abundance of new materials and there are in existence competent and strong companies who would be willing to cooperate in an effort to develop new products created from these new materials for the purpose of making assembly at the site less complicated and less costly.

An all-important principle to be recognized in such efforts is material reduction in the number of pieces and parts which now go to make up a completed building. Considerable progress towards this end has already been made by fabricators. It is in line with progress for the profession to seek means of cooperating with such fabricators towards further development.

In view of admonitions the architect is subject to, to use fewer materials, assemble them better, use fewer parts in the interest of lower costs, one's attention is arrested by the claim in "Mill and Factory" that the approximate total

average number of pieces assembled in a modern car is 17,645.

To assemble any such number of building parts at the building site would cost infinitely more than the cost of a motor car. Factory labor employed steadily many more hours than is building labor and not called upon for initiative, in contradistinction to building mechanics, earns less per hour.

Notwithstanding, auto parts must in large part be assembled by automatic machinery to accomplish the cost range reached in modern cars. But houses can never be sold standardized, comparable to the auto. Therefore comparing house production with auto car production is anomalous.

Egyptian and Mesopotamian minds were agitated in the interest of building improvements and one wonders which one was first in devising familiar features of architectural construction. At Tepe Gawra in Mesopotamia in 4000 B. C. they were building piers and pilasters that are reminiscent of the Middle Ages. Princeton's Professor of the History of Architecture, E. Baldwin Smith, gives Egypt credit for many inventions.

The Egyptians, he says, were first to use ventilators for cooling their homes. They gave the Greeks the idea of lion-headed water spouts and they built crypts under their temples.

He credits the Egyptians with being the first to use the grid iron town plan. He mentions many other "firsts" by the Egyptians, piling up the debt we owe to Nile civilization.

'Tis true, it has been a perfect autumn as far as the weather is concerned. Indian summer, indeed. The newspapers have been writing a lot about it, wondering about the origin of the name "Indian summer" and quoting Whittier:

"From gold to grey the mild sweet day
Of Indian summer fades too soon."

The weather bureau says it was in 1794 when Indian summer was first mentioned. In England it is St. Martin's summer and in Germany St. Luke's.

But for the love of St. Martin and St. Luke, why must all this lovely weather—building weather—pass without more use for erecting buildings!

Private enterprise is inactive and the country can't go on forever on PWA and WPA projects.

William P. Fox, new chairman of the I. S. A. Committee on Public Action, invites communications on violations throughout the state of the Illinois Architects' License Law.

Regarding recent correspondence from Master Plumbers Association to architects, it is the opinion of the I. S. A. Board of Directors that the general contractor or mason, whichever one procures the Chicago Building Permit to erect a structure, has the obligation to pay the fee in the Sanitary Bureau for plumbing fixtures to be installed.

The I. S. A. Board has considered seriously authorization to print in the Bulletin a list of members delinquent in dues for two or more years.

The Board extends best wishes to Ernst Hagerstrom Studio of Metalcraft for success with its school in teaching design and execution of objects in various metals combined with wood, glass, etc.

The publisher gives assurance that the I. S. A. "Handbook for Architects and Builders" will be in Illinois practitioners' hands before Christmas—a consummation devoutly to be wished.

Third Statewide I. S. A. Meeting

Champaign-Urbana Welcomes Illinois Society of Architects

It was two o'clock on the afternoon of October 15, 1938 when a goodly number of architects from up and down the state met in the Inman Hotel, Champaign, deposited their luggage, found their rooms, and immediately repaired to the ground floor to meet their confrères. Professor Provine and Ernest L. Stouffer, both of the University, did the welcoming, and President Jensen collected his directors and officers immediately for an impromptu directors' meeting. The meeting went into a huddle in the lobby and listened to the President tell of essential matters that must be taken up at the afternoon session of the Society at large.

The Business Session

At 2:20 the President called the meeting to order in the club-room of the Hotel with an attendance of about thirty-five. In the absence of Secretary Fairclough, Director Weissenborn functioned as secretary.

The President presented a letter from the Journeymen Plasterers' Association which pleaded for a clause in the proposed Illinois State Building Code requiring all interiors built for dwelling purposes to be plastered. The letter requested the support of the architects for this clause. The subject roused discussion and the consensus of opinion was to go slow in any recommendation of a clause that might be ruled out by the courts as class legislation.

Mr. Scribbins of Moline pleaded for a state building code that was as short as possible, requiring only fundamentals and leaving elaboration and details to the communities. Frank Carpenter of Rockford averred that no code was of value unless properly implemented for enforcement. John Davey of Chicago testified that the Wisconsin State Code gave only items that shall not be done; that any city in Wisconsin could have its own code as long as it contained minimum state requirements. Mr. Miller, of Scranton, Pa., an old-time member of the Society, suggested the architect as the one to bring all material interests together for a general talkfest bearing on the building industry's troubles.

President Jensen laid before the meeting the proposal to make Francis J. Plym an honorary member of the Society in recognition of his establishment of traveling fellowships in architectural design and in architectural engineering. This proposal received unanimous approval. At this point, Professor Provine—with Mr. Plym on his arm—entered the meeting under much applause. The formal presentation of the resolution was held over to the evening meeting.

The Society's representative on the Reorganization Committee of the A. I. A., whose aim is to bring all architects of good standing into one national organization, was called upon for a report. Arthur Woltersdorf reported the progress made to date in this effort.

Paul Gerhardt, Jr. moved that the President appoint a committee to meet with the Chicago and Central Illinois Chapter for the purpose of achieving such an amalgamation, at least in the State of Illinois.

To the Laboratory and Research House

Ernest Stouffer then announced the program for the afternoon following this meeting. It was to repair to the Talbot Testing Laboratory from the hotel, where experiments with laboratory machinery would be shown, and from there to the University's residence for heating and ventilating. The company, now augmented in numbers, drove in cars to the laboratory and then to the research house. In both places they were cordially received and every effort made to interest them in the work of the institution.

At the research house the company was divided into two groups, each led by a post-graduate student, explaining the best ways of firing a heating plant, conducting of heat, control of moisture, etc.

At Champaign Country Club

The dinner at Champaign Country Club called for 7 P. M. was somewhat delayed. It was attended by about seventy men and women who, after the dinner, listened to words of welcome and wisdom. The first speaker introduced by the President was Pro-

fessor L. H. Provine, head of the Department of Architecture, who welcomed members and guests to the city and spoke of the aims of the teaching staff of the Department of Architecture. He dwelt upon the interest and will-to-succeed of the majority of students and reminded his hearers that these students were given to understand when they graduated that their career in preparation for practice was not finished; that that finish must come through practice under and as assistants to older practitioners, who had practical experience and achievement added to their academic studies. He pleaded for patience, interest and encouragement to the young graduates.

The President next took up the resolution that had been passed in the afternoon to make Francis J. Plym an honorary member of the Illinois Society. He recited that Mr. Plym was a graduate of the School of Architecture of the University of Illinois, that he had spent some years in the practice of architecture and had then left it to enter the field of ornamental metals as used in architecture; he had been successful, had become a force in his field throughout the land, his interest in the profession had never flagged, and he had established traveling fellowships to be given by his Alma Mater yearly to graduates in architectural design and in architectural engineering. The President called upon Victor A. Matteson to read the resolution passed at the afternoon session. It is:

"WHEREAS: Francis J. Plym, a graduate in architecture, Class of 1897, University of Illinois, has distinguished himself by encouraging and advancing the study of architecture through the establishment in 1912 of the Plym Fellowship for Architects, which has been continued to the present date, and the Plym Fellowship for Architectural Engineers (as a scholarship in 1922 and endowed as a fellowship in 1937), therefore be it

"RESOLVED, by the Illinois Society of Architects, assembled in regular meeting held at Champaign, Illinois, October 15, 1938, that recognition be extended to Mr. Plym in the form of Honorary Membership in the Illinois Society of Architects."

When quiet was restored after the applause, Professor Rexford Newcomb, Dean of the College of Fine and Applied Arts, was introduced. He spoke at length regarding the trend of architecture today. He turned back the pages of history and led his hearers up to what America was doing architecturally before and after the Civil War and came to the time of the Columbian Exposition at Chicago in 1893. This Exposition, though conceived and carried out in Classic-Renaissance lines, did not completely bury the efforts of the Chicago School, led by a band of young men inspired by Louis Sullivan in the late 1880's and early '90's.

He carried his hearers on to the present day, pointing out the precipitate of so-called modern architecture. He felt that all architecture, when it is created, should be modern, whether it carries reminiscence of earlier periods or not. Evolution, he thought, was a safer and wiser standard than revolution.

Dr. Carl O. Schneider, an oculist of Chicago who for years has made color photography his avocation and whose pictures are much sought for, was the next speaker. He prefaced the showing of his pictures on the screen by a talk on color photography, more or less technical, which contained the statement that of one picture of a subject shown, at least five others had been made that were not entirely successful. His showing began with gardens along the Gulf states, ending with those in north shore suburbs of Chicago.

He carried his auditors to the Smokies and to the Rocky mountains, more particularly to the Grand Canyon of the Colorado, to Zion and Bryce Canyons and to the Rainbow Bridge—the greatest natural bridge known, which is in Southern Utah. Astonishing were some of the pictures achieved in these places, particularly in Bryce Canyon, where the same subject was shown in a number of different lights, presenting extraordinarily different pictures. With some of these subjects the company was held spellbound, and at the end the President thanked Dr. Schneider for his extraordinary exhibition and hoped that at some future time the Illinois Society might again be honored.

The evening session ended about 10:30.

The Inspection of Buildings

Sunday morning at 10 o'clock the company was invited to meet Professor Provine and others of the teaching staff at the new University library building on the campus. Those who came were well repaid by being shown through the University library rooms and halls and from there through the building of the architectural department. Both these buildings were the design of the late Charles A. Platt.

The 1937 statewide meeting it is planned to hold in Rockford, Illinois. Invitations to this end were received at the afternoon session in the addresses of Frank Carpenter and Gilbert A. Johnson.

Joint Meeting Studies Air Conditioning

The symposium, inaugurated by William Jones Smith in cooperation with a group of Chicago mechanical engineers, and sponsored by the Chicago Chapter, A. I. A.; Illinois Society of Architects; Illinois Chapter, A. S. H. V. E.; Western Society of Engineers; Chicago Association of Consulting Engineers; and National Air Conditioning Manufacturers Association, was held on November 22 in the auditorium of the Western Society of Engineers. While the meeting was set for 7:30 P. M., practically all of the 600 seats in this room were occupied by 7 o'clock by architects, engineers, salesmen, and the like, with a fair sprinkling of ladies. By the time the program started, the aisles and lobby and even the stairways to the story below were packed with standees, and it is evident that between 1100 and 1200 people wished to attend.

John Howatt, Chief Engineer of the Chicago Board of Education, made a few graceful remarks and presented, somewhat after the manner of prize fighters taking a bow preliminary to the main bout, some of the Chicago members of the committee.

Dr. Irving S. Cutter, Dean of Northwestern University Medical School and Editor of the "Tribune" health column, spoke in his usual charming and incisive manner on "The Importance of Correct Air Conditioning Standards and Some Dangers to Avoid." The dangers apparently are those of too low an artificially cooled interior for buildings in summer, and too low a relative humidity in winter. The theory, so widely advertised, that the deaths in the black hole in Calcutta were due to carbon monoxide or some other poisonous condition in air, has been exploded. Heat, either in too high intensity or in too low intensity, is the profound disturber of the human nervous system. No lethal poison has been discovered in expired air. Excess heat may be expressed in both too high dry bulb temperature and too great a water vapor content of the air.

Dr. Cutter suggested the application of some compound in the wash water of a spray dehumidifier used in air conditioning, which will destroy pathogenic bacteria; even though it may not have been shown that entire freedom from air borne bacteria is of any particular advantage for the air entering an air-conditioned room.

He described research on blood circulation in rabbits' ears. They found that when the capillaries were dilated with blood the heat release to the air from the ear increased enormously. The blood content of these capillaries responds to dry bulb temperature changes, and a sudden contraction occurs upon a reduction of six or eight degrees in room temperature. When this contraction occurs the liver and other visceral organs become congested with blood and the whole system is thrown out of balance. The capillaries gradually will refill with blood, but upon further temperature reduction of a few degrees the process will be repeated, and an excess load of blood into the visceral organs occurs.

This same effect, so easily observed in the rabbit's ear, happens from the same causes in humans and the unbalancing and congestion is evidenced in colds and other ailments. Dr. Cutter stated that as an observer, he believed that the standards of summer air conditioning should limit the differential between indoor and outdoor temperatures to such an extent as to avoid any sense of chilling. It is of course true, though Dr. Cutter did not say so, that the sense of chilling by humans responds not only to temperature, but also to relative humidity, rate of speed of air movement, thickness of clothing, direction of air current, time of exposure, and on idiosyncrasies of the individual.

Charles Leopold of Philadelphia followed Dr. Cutter. Mr. Leopold is a distinguished mechanical engineer, known principally in

Chicago for the air-conditioning system in the Palmer House. He designed the cooling systems in the Capitol in Washington, with the exception of those in the Senate and Representatives chambers. Mr. Leopold defined some of the principal terms employed in complete air conditioning, such as wet bulb, dew point, sensible and latent heat, absolute and relative humidity, and the like. He explained the effective temperature chart of the American Society of Heating and Ventilating Engineers, with its zones. These zones were obtained by questioning a large number of observers during a considerable length of time as to their individual reactions as the air conditions in the enclosure in which they were confined were changed through a wide range of temperature and compensating relative humidity.

Following Dr. Cutter's lead, he stated that an increase of as much as 30 per cent has been noted in the volume of blood in a normal human being exposed to high temperature for some time.

He suggested an ideal interior summer condition of 78° F and 50 per cent relative humidity as being probably the reasonable concomitant of the popular 70° F and 50 per cent relative humidity for winter. He mentioned the various attempts which have been made to prove some particular outstanding change in health due to air conditioning. Since people are subjected to the influence of air conditioning only during a part of their lives, the favorable observations of the Metropolitan Life Insurance Company on its employees are significant but not conclusive. Research on incidence of respiratory diseases in public school children has demonstrated that the significant causation is wet feet and that varying quality of school room ventilation did not affect incidence of respiratory disease. It is proved fairly well, however, that people who are uncomfortable physically do not do as efficient work, or as much work, as those whose minds are free to serve the work in hand.

Mr. Leopold exhibited diagrams illustrating several types of large cooling systems. It was noticeable that these showed preponderance in use of deep well water, even though the water may not have been cold enough to accomplish adequate dehumidification without auxiliary mechanical refrigeration.

An interesting exposition was made of the use of a pretempering convactor to absorb into water as much as practicable of the sensible heat of the entering air. The water is pumped to a convactor to leeward of the air-chilling and dehumidifying apparatus, where the heat may be returned to the air so as to expand it, without permitting return of the water vapor. Mr. Leopold called it a "run around". He explained the Lithium Chloride system employed in the Palmer House; also showed a diagram of a Silica Gel dehumidifying system. In both schemes the entering air is dried to a very low relative humidity by absorption, so that when this dry air is mixed with the proper proportion of recirculated air, the resultant will be at a controlled temperature and relative humidity.

Robert E. Hattis read a letter from Prof. Philip Drinker of Harvard School of Public Health, the man who invented and developed the "iron lung", suggesting that we have not reached a point where closely defined air conditioning standards can be set or are particularly desirable.

John R. Hertzler of the York Ice Machinery Corporation of York, Pa. gave an interesting and especially well presented talk on "Refrigeration as Applied to Air Conditioning". He explained the various kinds of power supply, and the various methods of producing refrigeration and of transferring to the outer air the heat extracted from air conditioned rooms in summer.

Albert Buenger of the Air Conditioning Division of Frigidaire, General Motors Corporation, Dayton, Ohio, then delivered an interesting and constructive talk aimed particularly at architects, concerning structural items in the architectural design of buildings to be considered in connection with air conditioning.

He said that the architect has hard work to find enough space for flues, ducts, and apparatus to suit the air conditioning engineer, who invariably asks for more space than there is available. Mr. Buenger gave very interesting general cost items for investment and operation of air conditioning systems, per ton of refrigeration and per square foot of occupied floor space. He expressed in dollars of air conditioning cost saved, the value of awnings, roof ponds of water, insulation in ceilings, etc. He recommended that the compressors of cooling systems and the furnaces and boilers of heating systems be located as closely as possible to the heat transmitters for warming or cooling the air.

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The Architect's Fee on the Small House

The Editor: The October-November issue of the Bulletin contained a letter by Professor Hugh S. Morrison of Dartmouth College giving some views on the small house problem. This communication was influenced by an article of my own which you published in the previous issue. Inasmuch as the Professor refers to my article, I would appreciate expressing my ideas on the points he has raised.

His first point is "the impression is abroad that an architect-designed house is an expensive house." He dwells on this point very well, but let us go back a step farther and bring out some more ideas.

Our training primarily is pointed to develop our native ability in design and planning so that the ultimate result is a sound and logical plan and a thing of beauty. This idea does not leave much room for hard and cold economic matters that just automatically appear when we tackle these problems after we "hang out a shingle". We are immediately confronted with these economic matters after we have created a lot of beautiful designs (if our instructors pass them) in cloistered collegiate halls. It's a rough experience.

Furthermore, we seldom get the type of commissions in professional practice that we work on in training at school, and during that training, such things as costs, quantity surveys, specifications, etc. are rather removed from our thoughts.

Another reason for increased costs in architect-designed and supervised projects is due to the contractors' feeling that they must protect themselves against the possible whims of the fellow who holds the club over them. I have no quarrel with that idea. Under these circumstances I would do it myself.

Professor Morrison touches on the matter of fees and illustrates a very interesting idea. We should tell him that the matter of fees is a subject that could start a civil war by the mere mention of it. The Institute schedule of fees is accepted as standard, but try and get them!

The idea of a sliding scale of fees based on economies effected by the architect is an idea that might be studied. At present the A. I. A. fee system provides an additional percentage to the architect if the various classes of work are let separately. This amount is 4% in addition to the basic fee, which is decreed at 6% minimum for structures under \$10,000. This addition is a fair one but still does not solve the increased amount that each subcontractor adds to "protect" himself and, secondly, if the home-buying public is in the low-cost field (we are talking about \$5,000 to \$6,000), they will not pay the basic fee — well, the additional amount need not be discussed.

Let us consider, for example, a \$5,000 building. The full fee at 6% would be \$300; if the contracts are let separate, an additional 4% fee is \$200—or a total of \$500—or 10% of the cost of the building. Mr. Public knows that \$500 will buy a lot of things, such as the electrical wiring and fixtures, the finished hardware, the roofing, shades and curtain rods and, maybe, most of the decorating. A sizable item. So I feel our present system of fees will not help us in the small house field, which other elements of the building industry now have in their control and intend to keep and promote to an even greater degree.

As for the sliding scale based on additional percentage for the saving effected, it has possibilities and also some things that could not be reduced to any common denominator. It ought to be studied, and it probably will be—by the contractors and builders.

—Carl E. Heimbrodt.

Limited Fee, Limited Service Disapproved

The Westchester Chapter, A. I. A. and the Westchester County Society of Architects, New York, jointly disapprove of a "limited fee for a limited service" by architects in the small house field. They have taken this action on the grounds that such limited service is contrary to the public welfare. Limited service does not relieve the architect in the eyes of the public of responsibility, and the societies say that partial service is unfair to the architect, the public and the mortgagor.

The public cannot differentiate between limited service and full service. Hence limited service is a subterfuge which deceives the public and gives them a false sense of security.

Proposing Langley Scholarship Candidates

Group 1 (Office) Candidates:

Proposers. Any architect in the United States or Canada may propose any other architect or architectural draftsman residing in the same country as a candidate for an award in Group 1.

Form of Proposal. Every proposal of a candidate in Group 1 shall be made in duplicate on A. I. A. Form S70, which may be obtained from The American Institute of Architects, 1741 New York Ave., Washington, D. C.

Filing Proposals. All information and data required shall be filled in on the proposal form, and both the original and duplicate proposal shall be sent to The Secretary, The American Institute of Architects, at the address given herein, so as to reach there not later than March 1, 1939. Proposals received after that date cannot be considered.

A proposed candidate may be requested to submit examples of his work and to appear before a representative of the Committee.

Group 2 (School) Candidates:

Proposers. The faculty or head of any architectural school in the United States that is a member of the Association of Collegiate Schools of Architecture, or the faculty or head of any architectural school in Canada whose standing is satisfactory to The Secretary of The American Institute of Architects, may propose any teacher in such school, any student about to be graduated from the school, or any graduate student engaged in post-graduate work in the school or in travel, as a candidate for an award in Group 2.

Form of Proposal. Every proposal of a candidate in Group 2 shall be made in duplicate on A. I. A. Form S70a, which may be obtained from The American Institute of Architects, 1741 New York Ave., Washington, D. C.

Filing Proposals. Procedure is the same as for Group 1. No submission of examples required.

Architects' Ball on December 2

Architects' Ball Committee, Inc. is planning ambitiously to entertain architects and "society" at a fancy dress ball to take place in the Drake Hotel, Chicago, on the night of December 2, beginning at 10:30 P. M. This is the third architects' ball given in Chicago at the Drake Hotel in recent years, though this is the first under the auspices of Architects' Ball Committee, Inc.

John W. Root is President, Chairman of the Entertainment Committee, and Producer. There will be presented eight moving picture themes, beginning with "Artists and Models in Europe" and concluding with "If I Were King." Hollywood studios have assured their cooperation. There will be competitions and prizes.

Admission is: Single \$7.50; Couples \$12.50; Boxes seating six \$75.00. Dinner extra at \$3.00 per plate.

The proceeds will be devoted to the architectural scholarship and educational fund.

Free Admission to Burnham Library

Membership tickets for the current year issued by the Chicago Chapter, A. I. A.; Illinois Society of Architects; Architects Club of Chicago; Architectural Sketch Club; and Women's Architectural Club are honored at the Art Institute on pay days for free admission to the Burnham and Ryerson Libraries. These tickets do not admit holders to other parts of the Art Institute. They are honored for library admittance only. It is necessary for the architect to have his membership ticket with him at the time.

—Marian Rawls, Assistant-in-Charge
Burnham Library of Architecture.

When Philadelphia held its centennial exhibition in 1876, bananas were so novel they were sold in tinfoil at ten cents apiece.

A four-person bed for the sick is among the historic exhibits in the French hospital museum at Lyons.

Foresters estimate that southern New England lost about half its trees in the recent hurricane.

Chicago Chapter Business Meeting

The business session of the Chicago Chapter, A. I. A. November meeting was held at Henrich's Restaurant on November 22 at noon. Seventeen members attended and some of these had sufficient proxies to make a quorum.

The Chapter having found that its annual dues of \$8.00 prevailing for the last eight or ten years are inadequate, the dues were raised to \$10.00 per year.

The much discussed classification of membership in the Institute came next and the Institute's change in by-laws requiring corresponding by-law changes in the Chapters to three classes of membership, not including the Fellows whose status remains unchanged, was consummated. The three classifications are these: 1. Institute or corporate members. 2. Chapter associateship, where dues are paid to the Chapter and to the national body. 3. Junior associateship, where Chapter dues only are paid.

A letter was read from James Ford of the Department of Sociology of Harvard University, requesting that names of practicing architects in this territory, outstanding in the modern solution of dwellings and apartment houses, be forwarded to him for use in the writing of his forthcoming book on American modern residential architecture.

Pepys Made and Used a Slide Rule

By studying Pepys' diary, Jerome Fee, engineer of San Francisco's Water Department, finds evidence that Pepys' "ruler" was a plot of logarithms which had been discovered by Napier in 1614. Pepys' ruler corresponded to the main logarithmic scale of a modern slide rule, Mr. Fee declares in the current issue of "Civil Engineering".

By using this rule, with a pair of compasses to measure off distances, it was possible to multiply and divide easily. The development of the sliding rules of modern form had not yet come into being, but quickly did so. It is possible that Pepys himself was instrumental in this achievement for he states that he had a slide rule made to order that was "certainly the best and most commodious for carrying in one's pocket, and most useful that ever was made, and myself have the honor of being, as it were, the inventor of this form of it." To Pepys also must go credit for first using the term "slide rule".

Pepys' comments on slide rules end in 1664 when he acquired one of silver and they were no longer new to him. However, 30 years later Pepys suffered losses by highway robbers and in his listing of his vanished possessions cited "a silver ruler".

Primitive Man Took His Drink

Tracing the family tree of the cocktail and highball, Matthew W. Sterling, Chief of the Bureau of American Ethnology, finds that somewhere in the Stone Age men began supplementing nature's two basic drinks—milk and water—with more potent concoctions. "It is amazing," he commented, "the lengths to which the human race will go to avoid drinking water".

Beer gardens and bars flourished 2000 years ago, Mr. Sterling said, describing a bar with all the familiar features except the foot rail, recently unearthed at ruins of Ostia, seaport of Rome. The bar in Ostia has a marble top, shelves for the stock, a storage cellar for wines, two stone seats for casual customers and a garden at the back where people evidently tarried to drink, since there were bronze hooks on a marble slab for hanging wraps.

The "Architectural Forum" shows excellent judgment in presenting Henry H. Saylor's texts, including his "Diary", monthly in the Forum. In Saylor's pages at least the architect finds something readable. The rest of the pages are deadly to a reader.

New York Architect John J. Klaber's critical letter on Federal housing, appearing in October "Pencil Points" has roused lively discussion and brought to "Pencil Points" some contrary opinions, to judge by replies appearing in the November number of that publication.

(Continued from Page 5, Column 2)

Elliott Harrington of the Air Conditioning Division of the General Electric Company, Bloomfield, N. J., delivered an interesting talk on "Practical Applications of Air Conditioning," consisting principally of illustrations of exteriors and interiors of buildings in which summer cooling has been installed. These covered the work of many different manufacturers and engineers, and showed the great ingenuity which has been developed in rendering ducts and diffusers artistically acceptable while still complying with engineering requirements.

Wm. B. Henderson, Executive Vice-President of the Air Conditioning Manufacturers Association, of Washington, D. C., speaking on the subject "A Broad View of Manufactured Products Available to the Air Conditioning Industry," emphasized the fact that year around air conditioning apparatuses are available, and that the term applies to winter service as well as to summer service. He stated that a summer cooling device of today occupies about one-sixth the space required by a machine which performed the same service twenty-five or thirty years ago.

Refrigeration compressors, using modern refrigerants, tend toward the high speed multi-cylinder type. The self-contained portable summer air conditioning machine which a store proprietor can take with him if he moves, has received special attention, is now available in sizes up to ten tons capacity and is promised up to 15 tons capacity.

The last, but by no means least interesting speaker, was Willis H. Carrier, Chairman of the Board, Carrier Corporation, Syracuse, N. Y. Mr. Carrier is the Dean of the industry, loved and respected by all who know him and affectionately called the "Chief". He sketched the origin of the moisture-introduction methods so necessary in many industrial processes and first called air conditioning by Stewart W. Cramer near the turn of the century.

Mr. Carrier dwelt modestly on the development by himself as Chief Engineer of the Buffalo Forge Company, of the rational psychrometric formula, which permits exact mathematical computations concerning these matters.

He indicated his own impression that true air conditioning deals principally with control of the water vapor content in air, and that the appendages of temperature, cleanliness, motion, etc. which have been added by popular usage and custom were not the original concepts. He gave credit to various engineers for development of light weight non-rusting heat transfer convectors, for safe, moderate pressure refrigerants and for the remarkable reductions in size and weight of modern refrigeration machines.

The meeting adjourned at 11 P. M. after a vote of thanks to the speakers. These men came from afar, at their own expense, and gave of their time and experience without the slightest evidence of a selfish thought. Many of the speakers in illustrating the progress of air conditioning, used the data of their competitors.

It is apparent that the Air Conditioning Industry, like its parent the American Society of Heating and Ventilating Engineers, is ruled by a spirit of generosity in its internal mechanisms with a decided leaning toward public service.

The speakers met at luncheon to discuss with each other their papers and to insure full coordination. In several instances papers were exchanged between competitors, and were revised prior to November 22nd, and the afternoon of that day was devoted to further preparation and coordination.

The various papers will all be manifolded and no doubt many, if not all of them, will appear eventually in the trade papers. It was indeed inspiring to have cooperated with Mr. Smith in developing the program and to have received such generous response from my own friends in the industry. I have devoted a few hours occasionally to contributions to the Bulletin, in return for which I have been privileged to receive it. I cannot forbear expressing my pleasure in complying with Mr. Woltersdorf's request for this review.

—Samuel R. Lewis.

One logical and practical method of keeping a building abreast the year-to-year improvements in equipment is to retain the building's architect to advise annually on the condition of the building and the possibilities of bringing it up to date. In an architect's periodic check-up plus prompt execution of his recommendations for modernization many a building manager will find the way to head off headaches.

—Building Reporter.

Who Has Preserved Oscar Cobb's Plans?

The Editor: "Living Architecture," the official book of the Chicago Chapter, A. I. A. published in 1930, carries reference on page 70 to Oscar Cobb, architect, who was quite prominent in Chicago in the eighties. I knew Mr. Cobb, he having designed the interior of an opera house for us in a building located in Ohio in 1886. The plans which he furnished us have long since disappeared and the building itself was destroyed by fire a few years ago.

I am anxious to get blueprint copies of the plans Mr. Cobb prepared for that opera hall. My purpose in writing you is to learn whether Mr. Cobb's accumulation of drawings is still in existence and if so where I could locate them. This information would help in my search for the drawings Cobb made for us in 1886.

—Otto Vollrath.

607 Belleforte Ave., Oak Park, Illinois

How Egypt's Roses Came Fresh to Rome

The Editor: Please tell Richardson Wright, garden authority, who is in a quandary regarding the method of preservation used by Egyptian rose growers to deliver their product fresh to Rome, that: First, roses were cut as firm but well developed buds with long stems, no leaves or bracts torn. Second, stems cut, burned and dipped in wax. Third, each bud individually wrapped in parchment and packed in tight containers. Fourth, buds thus packed will open to perfect roses after three to six months when the stem is recut and placed in tepid water.

A dollar-saver for any modern suburban dweller.

—William G. Purcell, Architect, Pasadena, Cal.

Convention of New York Architects

The New York State Association of Architects held a convention at Hotel Pennsylvania, New York City, from October 27-29. Speakers were Arthur Loomis Harmon, President, New York Chapter, A. I. A., James W. Kideney, President, New York State Association of Architects, R. H. Shreve, Matthew del Gaudio, Charles C. Platt, Senators Dunnigan and Desmond, and others.

A visit to the New York World's Fair was made under the guidance of Stephen F. Voorhees, Chairman of the Board of Design.

Life Is That Way

"The Blue Print," November Bulletin of the Westchester County Society of Architects, N. Y., devotes its editorial space to fun over "Life's" recent presentation of model houses for people of small and moderate incomes. The writer gives a facetious analysis and criticism of the house by Edward D. Stone, which is called "super-efficient machine for living."

The statement closes with the announcement that the W. Allen Ramseys of Atlanta, for whom Mr. Stone created this "machine to end all machines" have had a change of heart and have selected for their little house in the south, not "the super-efficient functional, a cross between a gas tank and a greenhouse on the wing," but Richard Koch's throw back, once called "Early American."

Two great trumpets of the Bronze Age were brought out of a showcase in Denmark's National Museum and played by modern musicians recently, as a feature of an international meeting of archaeologists in Copenhagen.

Because many people have a fear of being shut in when they visit cold locker rooms, an Ohio man has invented a refrigerated locker storage system whereby a customer's own locker is hoisted up to him in a warm room when he wants to store or remove meats and vegetables.

Charles Harris Whitaker, publicist and one-time editor of the "Journal of the American Institute of Architects," died in Washington, D. C. on August 10. Mr. Whitaker was born in Rhode Island in 1872. His education was had in the United States and Europe. He was editor of the "Journal of the American Institute of Architects" from its founding in 1913 to its demise in 1927. He was a

member of the Regional Planning Association of America and wrote much on housing done by the U. S. Government.

For the A. I. A. he edited, besides the "Journal," "Bertram Grosvenor Goodhue, Architect" and "Architectural Sculpture of the Nebraska State Capitol." His book "From Rameses to Rockefeller" appeared in 1934.

Roy E. Pingrey, architect, died in Chicago on September 22, age 57. Born in Bloomington, Illinois, he entered the office of the Supervising Architect of the Treasury, Washington, D. C. in 1900; in 1905 to Panama on Canal projects; in 1906 to Chicago with Frost & Granger, architects for Northwestern R. R. Chicago Terminal Station; in 1911 with E. C. & R. M. Shankland, the firm becoming Shankland & Pingrey in 1920; in 1925 his firm became R. E. Pingrey & Co. Kirk Soap, Hurley Machine and Swigart Paper plants are numbered among his works.

C. Grant La Farge, prominent American architect, died on October 11 at his home in Saunterstown, Rhode Island, age 76 years. Mr. La Farge, son of the famous John La Farge, painter, designer of stained glass, and literature, was born at Newport, Rhode Island, studied at M. I. T., and served in the office of H. H. Richardson. He was an M. F. A. of Princeton University.

With his classmate George L. Hines, he formed the firm of Hines & La Farge, Architects, in 1886. The firm continued in practice until 1910, when Mr. Hines died. After a national architectural competition for the Cathedral of St. John the Divine in New York, where the late Professor William R. Ware was architectural adviser, Hines & La Farge won first place and were made architects of the edifice. They carried out in the choir end and crossing their pre-miated design. Shortly after the death of Mr. Hines, Ralph Adams Cram became architect for the cathedral and the design from the choir end forward was changed.

Hines & La Farge did much other ecclesiastical work in the eastern states. They did mausoleums in cemeteries, a memorial library or two, New York City's subway stations, and buildings for the New York Zoological Park. From 1910 to '15 Mr. La Farge's firm was La Farge & Morris and in 1931 it became La Farge & Son.

He was past-president of the New York Chapter, A. I. A., Architectural League of New York, and Secretary of the American Academy in Rome. He was a Fellow and past-director of the A. I. A.

Albert J. Fisher, Chicago architect, died in his home on October 21, age 76 years. Born in Cincinnati, Ohio, he was formerly associated with the Chicago firm of Fisher and Gaul. A number of Catholic churches stand to the credit of that firm.

Richard Griesser, architect in Chicago, specializing in breweries, died in St. Luke's Hospital, Chicago, on October 27, age 70 years. Mr. Griesser was born in the state of Baden, Germany, and came to this country at the age of 17. His father, William Griesser, was —like the son after him—a brewery specialist who came here from Germany and established offices in Chicago. Richard returned to Germany, pursuing his studies and came back to Chicago in 1892, joining his father. Their business was extensive and William Griesser took over the eastern office while Richard was left in charge of the Chicago office in 1900.

Since that time Richard Griesser's plans have been carried out for breweries and malt houses in Mexico, Canada, the West Indies, China and Japan, besides many plants in this country.

Richard Griesser leaves a son who plans to carry on the father's business. Mr. Griesser was a member of the Illinois Society of Architects since 1920.

Charles Zeller Klauder, distinguished American architect, died in Philadelphia on October 29, age 66. Mr. Klauder was born in Philadelphia, Pa. In 1922 Princeton University awarded him an M. F. A. degree with the title of Doctor.

Associated with the late Frank Miles Day, the firm became Day Bros. and Klauder 1910-13; Day and Klauder 1913-18; and from then on Charles Z. Klauder.

His work in architecture is found on campuses of many American universities. He was architect of Holder Hall group and other buildings at Princeton and the Cathedral of Learning, University of Pittsburgh. He is represented on the University of Chicago campus by a large dormitory group on the south side of the Midway.

Mr. Klauder was a Fellow of the A. I. A. and corresponding member of Central Association of Austrian Architects. He was co-author of "College Architecture in America."